
doc. MUDr. Jan Gojda, Ph.D.



<div class="skolitel"></div>

Department of Internal Medicine 3FM CU and UHKV

<https://www.lf3.cuni.cz/3LFEN-381.html>

<https://www.fnkv.cz/diabetologicke-centrum-vedecke-aktivity.php>

Topic title

Intestinal microbiome and metabolome as the link between diet and metabolic profile.

Metabolic flexibility: response predictors to diet/exercise intervention

Metabolic bone disease in patients on home parenteral nutrition

Description of scientific activity

Clinical Research Unit (CRU) is a joint facility of Department of Internal Medicine and the Center for Research on Nutrition, Metabolism and Diabetes of the Third Medical Faculty of Charles University and the University Hospital Královské Vinohrady. The CRU specializes in a wide range of functional endocrinology testing, both for clinical and experimental purposes. The unit hosts both the academic and commercial research. The CRU associates directly to the other laboratories of the Center as well as Diabetes Center of the hospital and provides clinical and clinical - experimental services. It integrates knowledge from theoretical laboratories and translates it to clinical and applied research. Basic methods routinely performed at CRU include functional tests (methods of insulin secretion and insulin sensitivity, clamp studies, dynamic endocrinological tests), calorimetry and exercise tests, fat and muscle tissue biopsies, microdialysis. CRU also provides recruitment of volunteers for studies, administration, basic database management and data and sample retention, statistical processing, and support for publications. Major scientific focus is on physiological models in insulin resistance/secretion in cancer host and role of nutrition and diet-derived biocompounds on metabolic health.

Selected publications

Gojda J, Rossmeislová L, Straková R, Tůmová J, Elkalaf M, Jaček M, Tůma P, Potočková J, Krauzová E, Waldauf P, Trnka J, Štich V, Anděl M. Chronic dietary exposure to branched chain amino acids impairs glucose disposal in vegans but not in omnivores. *Eur. J. Clin. Nutr.* 2017. doi:10.1038/ejcn.2016.274.

Gojda J, Waldauf P, Hrušková N, Blahutová B, Krajčová A, Urban T, et al. (2019) Lactate production without hypoxia in skeletal muscle during electrical cycling: Crossover study of femoral venous-arterial differences in healthy volunteers. *PLoS ONE* 14(3): e0200228. <https://doi.org/10.1371/journal.pone.0200228>

Gojda, J.; Cahova, M. Gut Microbiota as the Link between Elevated BCAA Serum Levels and Insulin Resistance. *Biomolecules* 2021, 11, 1414. <https://doi.org/10.3390/biom11101414>

Selected or ongoing grants/clinical studies

Modification of gut microbiota in the treatment of insulin resistance: a personalized approach (NV18-01-00040 2018 – 2021)

Pancreatic Cancer: Metabolic Derangements Associated With Insulin Resistance (19-01-00101 2019-2022)

KOMPAS: Cohort prospective study of emerging nutritional factors among families (NU21-09-00362)

PhD Students

Number of PhD students currently studying: 4